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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/337,040	06/28/1999	MITSURO SUGITA	684.2864	8450

5514 7590 12/24/2002

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NEW YORK, NY 10112

EXAMINER

NGUYEN, HUNG

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 12/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/337,040

Applicant(s)

SUGITA ET AL.

Examiner

Hung Henry V Nguyen

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-25, 38-50, 63-75, 83 and 85-138 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 38-50, 63-75, 83, 85-99, 104-125, and 134-138 is/are allowed.
- 6) ☒ Claim(s) 13-19, 21-25, 100-103 and 126-133 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 20.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 13-19, 21-25, 100-103, 126-129 are rejected under 35 U.S.C. 102(e) as being anticipated by Gallatin et al (U.S.Pat. 6,259,513).

With regard to claims 13, 21-25, 100-103, 126-129, Gallatin et al (fig.1) discloses an exposure apparatus comprising all of the limitations of the instant claims such as: a light source (12); an optical element (14) disposed at the light source side of the reticle and having first exposure means (26 for example) for illumination a predetermined mask with light of a predetermined wavelength under the first mask illumination condition for exposing a first pattern (54) onto a predetermined region (20) and a second exposure means (28 for example) for illumination a predetermined mask with light of a predetermined wavelength under the second mask illumination condition for exposing a second pattern (56) onto the predetermined exposure

region (20) where the first mask illumination condition is different with the second mask illumination condition (see col.1, lines 66-67). It is the examiner's position that although Gallatin does not expressly disclose the first exposure and second exposure are carried prior to a development process, this is seen to be an inherent teaching since in an exposure apparatus for transferring a multiple patterns formed on a same mask onto a wafer as taught by Gallatin, (unless otherwise stated) all exposures must be performed before the development process for lithographically printing a circuit pattern on photosensitive wafer.

Gallatin further notes the light source can be any illumination source or system including KrF excimer laser, an ArF or F2 excimer laser (see col.2, lines 47-53) and Gallatin further discloses a projection optical system (18).

As to claims 14-17, Gallatin teaches "each of the plurality of different illumination regions 26, 28, 30 and 32 are used to control the illumination properties such as for example numerical aperture, coherence, fill, and sag of the resulting illumination used to project the image of the reticle 16" (see col.3, lines 13-17).

As to claims 18-19, Gallatin further teaches on a single reticle (16) "many different patterns or geometric configurations may be used. The geometric configurations graphically illustrate different patterns" (see col.3, lines 55-63).

Prior Art Made of Record

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Holscher et al (U.S.Pat. 6,403,285) teaches an exposure apparatus using a first light source having a first value of a characteristic such as first coherency for exposing inner fields of the wafer and

exposing outer fields of the wafer located adjacent to the edge of the wafer using a second light source having a second value of a characteristic such as second coherency, wherein the first and the second values are different from each other.

Allowable Subject Matter

4. Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 38-50, 63-75, 83, 85-99, 104-125, 130-138 are allowed.

Response to Amendment

5. Applicant's amendment filed October 15, 2002 have been entered. Claims 13-16 are amended. New claims 126-138 are added.

With respect to the prior art rejection, applicant's arguments have been carefully reviewed but have been traversed in view of a new ground of rejection as set forth above.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

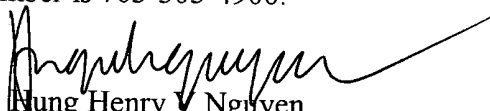
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V Nguyen whose telephone number is 703-305-6462. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on 703-308-2847.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.


Hung Henry V Nguyen
Examiner
Art Unit 2851

hvn
December 17, 2002